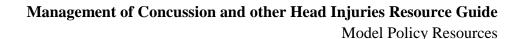


Concussion Management Resource Guide

MAINE DEPARTMENT OF EDUCATION OFFICE OF SCHOOL AND STUDENT SUPPORTS COORDINATED SCHOOL HEALTH





The following resources are offered in order to fully comply with the requirements of the chaptered law, Title 20-A MRSA§254(17) as a result of L.D. 1873, An Act to direct the Commissioner of Education to Adopt a Model Policy Regarding Management of Head Injuries in School Activities and Athletics, in the 125th Maine Legislature. Components that are required by this law are a model policy, training, student and parental acknowledgment, protocols and forms, immediate removal and evaluation, and medical clearance. Since approved trainings, sample acknowledgement form, protocols and forms are not contained within the model policy, the following resources have been compiled to fully satisfy the law.

The model policy and resources have been compiled, reviewed, and approved by the Concussion Workgroup which consists of representatives from the following:

Maine Association of School Nurses
Maine Athletic Trainer's Association
Maine Concussion Management Initiative
Maine Department of Education
Maine Principals' Association



APPROVED TRAINING

All school personnel including volunteers involved with school-sponsored activities and athletics must be trained in the identification and management of concussive and other head injuries.

Maine Concussion Management Initiative:

Free trainings for school personnel, school health staff, and medical providers https://mcmi-colby.org/page-18087

National Federation of State High School Associations:

Free concussion training for coaches, and school personnel

https://nfhslearn.com/courses?searchText=Concussion

Free concussion training for Students

https://nfhslearn.com/courses/61059/concussion-for-students

Center for Disease Control and Prevention:

Head's Up training for school personnel, coaches, parents

https://www.cdc.gov/headsup/youthsports/training/index.html

Head's Up training for Healthcare Providers:

https://www.cdc.gov/headsup/providers/training/index.html

Nationwide Children's Hospital:

School personnel:

https://www.nationwidechildrens.org/specialties/concussion-clinic/concussion-toolkit/aneducators-guide-to-concussions-in-the-classroom



STUDENT AND PARENTAL INFORMATION SHEET AND ACKNOWLEDGEMENT FORM

Prior to participating in a school athletic activity all students and the student's legal parent or guardian must be informed of signs and symptoms of concussion and the school's policy for the management of concussive and other head injuries and sign a statement acknowledging that review.

A concussion is a brain injury and all brain injuries are serious. They are caused by a bump, blow or jolt to the head, or by a blow to another part of the body with the force transmitted to the head. They can range from mild to severe and can disrupt the way the brain normally works. Even though most concussions are mild, all concussions are potentially serious and may result in complications including prolonged brain damage and death if not recognized and managed properly. In other words, even a "ding" or a bump on the head can be serious. You can't see a concussion and most sports concussions occur without loss of consciousness. Signs and symptoms of concussion may show up right after the injury or can take hours or days to fully appear. If your child/student reports any symptoms of concussion, or if you notice the symptoms or signs of concussion yourself, seek medical attention right away.

Symptoms reported may include one or more of the following:

- Headache or "pressure" in head.
- Nausea or vomiting.
- Balance problems or dizziness, or double or blurry vision.
- Bothered by light or noise.
- Feeling sluggish, hazy, foggy, or groggy.
- Confusion, or concentration or memory problems.
- Just not "feeling right," or "feeling down"

<u>Signs observed by school personnel</u> or peers include:

- Can't recall events prior to or after a hit or fall.
- Appears dazed or stunned.
- Forgets an instruction, is confused about an assignment or position, or is unsure of the game, score, or opponent.
- Moves clumsily.
- Answers questions slowly.
- Loses consciousness (even briefly).
- Shows mood, behavior, or personality changes.

What can happen if my child keeps on playing with a concussion or returns to soon?

Students with the signs and symptoms of concussion should be removed from the activity immediately. Continuing to participate with the signs and symptoms of concussion leaves the young brain especially vulnerable to greater injury. There is an increased risk of significant damage from a concussion for a period of time after that concussion occurs, particularly if the individual suffers another concussion before completely recovering from the first one. This can lead to prolonged recovery, or even to severe brain swelling (second impact syndrome) with devastating and even fatal consequences. It is well known that adolescents will often under report symptoms of injuries, and

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concussions are no different. As a result, education of all school personnel and students is the key for student safety.

If you think your child has suffered a concussion:

Any student even suspected of suffering a concussion should be removed from the activity immediately. No student may return to the activity after an apparent head injury or concussion, regardless of how mild it seems or how quickly symptoms clear, without evaluation by school personnel trained in such evaluation. Close observation of the student should continue for several hours. [SCHOOL UNIT NAME] requires the consistent implementation of graduated school reentry protocols that have been recommended by the Department of Education and are reflected in Board policy:

- Any student suspected of having sustained a concussion or other head injury during school or a school athletic activity must be removed from the activity immediately and evaluated by a qualified school personnel.
- Any student suspected of having sustained a concussion or other head injury is prohibited
 from further participation in any school activities until he/she is evaluated by the school
 nurse or other school personnel trained in such evaluation, such as athletic trainer who is
 able to determine if referral to a licensed health care provider is necessary.
- The student and his/her parent(s)/guardian(s) will be informed of the referral to a licensed health care provider for a medical evaluation for possible concussion or brain injury before the student is allowed to begin the graduated school reentry protocol, and then full participation in learning, recess, physical education, and any school activities.
- No student is permitted to return to the activity or to participate in any other school activity on the day of the suspected concussion.
- If referral to a licensed health care provider is necessary, the student will require written medical clearance from a licensed health care provider qualified and trained in concussion management and complete the graduated return to school protocol.
- School personnel should be alert to cognitive and academic issues that may be
 experienced by a student who has suffered a concussion or other head injury, including
 but not limited to: difficulty with concentration, organization, long-and-short term
 memory, and sensitivity to bright lights and sounds.
- School personnel shall accommodate a graduated school reentry protocol for return to full
 participation in all academic activities as appropriate, based on the recommendation of
 the student's concussion trained health care provider and appropriate designated school
 personnel (e.g. 504 Coordinator, school nurse).
- No student is permitted to return to full participation in extra-curricular school activities until fully returned to his/her academic program.

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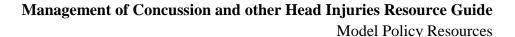
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• If at any time during the gradual return to school process the student exhibits signs, symptoms or behaviors of concussion, the student must be removed from the activity for that day and follow the graduated school reentry protocol.

You should also inform your student's school nurse, athletic director, or school administrator if you think that your child may have a concussion. Remember it's better to miss one activity than miss the whole season. And when in doubt, the student sits out.

For current and up-to-date information on concussions you can go to: https://www.cdc.gov/headsup/index.html

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Student Name Printed	Student Signature	Date
Parent or Legal Guardian Printed	Parent or Legal Guardian Signature	 Date





SAMPLE STUDENT HANDBOOK LANGUAGE

This may be used, if desired, to notify all students and parents of the risk of concussions and the local school policy.

A concussion is a brain injury and all brain injuries are serious. They are caused by a bump, blow or jolt to the head, or by a blow to another part of the body with the force transmitted to the head. They can range from mild to severe and can disrupt the way the brain normally works. Even though most concussions are mild, all concussions are potentially serious and may result in complications including prolonged brain damage and death if not recognized and managed properly. In other words, even a "ding" or a bump on the head can be serious. You can't see a concussion and most sports concussions occur without loss of consciousness. Signs and symptoms of concussion may show up right after the injury or can take hours or days to fully appear. If your student reports any symptoms of concussion, or if you notice the symptoms or signs of concussion yourself, seek medical attention right away. {SAU} has a policy (provide your link) that states any student who has concussion symptoms and is referred to a health care provider must be evaluated by a health care provider licensed to diagnose a concussion before they can return to school, a graduated school reentry protocol (provide your link), and a gradual return to play protocol (provide your link) for concussion management. For more information on concussions you can go to: https://www.cdc.gov/headsup/index.html. By signing that I have read the student handbook, I am confirming that I understand that a concussion may occur from an injury in any setting. I have read the school policy and understand that there is a protocol in place for graduated school re-entry and a gradual return to play following a concussion and medical clearance.

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Protocols and Forms

The Department of Education must create protocols and forms that must be used by schools in the implementation of the policy on the management of concussive and other head injuries.

The Head Injury Tracker (HIT) is a free, web-based tool available to all schools for athletic trainers and school officials to easily record and track concussions. HIT was developed through the Maine Concussion Management Initiative Research Group at Colby College. https://www.mcmi.colby.edu/hit/

Concussion Management Team

The Concussion Management Team (CMT) should have a few core members that have a solid understanding of the concussion policy and graduated return to school protocol. The academic monitor role should shift as the team manages different student reentry plans.

Title	Suggested individual	Responsibilities
Point Person	School nurse Administrator School counselor	 Coordinate CMT Advocate for the student's needs Serve as the primary point of contact with the student, family, medical provider and all members of the team
Symptom Monitor	School nurse Athletic trainer Physician assistant Nurse practitioner Physician	 Assess the student for concussion symptoms regularly for the first two weeks or longer as necessary Report assessment result to the CMT or point person
Academic Monitor	Teacher (s) School counselor Other school staff person familiar with the student	 Collect teacher reports about academic performance Report behavior and academic progress to the CMT
Other members as necessary	Athletic director Neuropsychologist School psychologist Coach Physical therapist Athletic trainer School counselor Student Parent	 Provide context to the student's symptoms, behavior, and academic progress Improve communication Identify upcoming needs and challenges facing the student



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Graduated School Reentry Plans

A graduated school reentry plan is developed by the school staff, such as the concussed student's teachers, guidance counselor, school nurse, athletic trainer, neuropsychologist (if available), parent(s)/caregivers and medical provider. This plan supports the student's return to academic activities and eases the stress of making up past work while engaged in their present work. The plan must include:

- Step-by-step instructions and details for students, parents and school personnel
- Time frames for physical and cognitive rest within first few days post-injury and throughout the recovery as needed
- Guidance on graduated return to extracurricular activities following the full return to classroom studies, including classroom accommodations or modifications
- Frequency of assessments by the school nurse, school physician, neuropsychologist or athletic trainer until full return to the classroom and extracurricular activities are authorized
- A plan for communication and coordination among school personnel and with the parents/caregivers and the student's medical provider

An individualized, flexible and graduated reentry plan is strongly recommended because symptoms vary from individual to individual and often change in type and severity throughout their recovery.

A concussion can interfere with a student's ability to function in school, particularly during the early recovery phase. It is sometimes referred to as an "invisible injury" as it can be challenging to recognize all the symptoms a student is experiencing. Monitoring a student's physical and academic recovery and providing necessary accommodations can help the student recover more quickly and return to full academic engagement more successfully. Many students will recover from a concussion within the first 10 to 14 days, with the majority recovering fully within 4 weeks following the injury. For most students, only temporary, informal, academic adjustments and symptom-specific supports are needed.

Considerations for a Returning Student

When a student is returning to the classroom after a concussion, keep in mind:

- They may still experience symptoms that make it difficult to fully engage in class the way they did before the injury.
- Concussion symptoms can often change during the first 24-48 hours following the injury.
- As students recover, they will likely require some temporary accommodations and supports.
- School reentry will likely require frequent communication and collaboration among school personnel, the student, their parent(s)/caregivers, and their health care providers regarding the student's functioning, challenges, and needs.
- Each individual student may be affected differently.
- If student experiences symptoms for more than 4 weeks, they may need a comprehensive, multidisciplinary assessment to develop a treatment plan, as well as more formal



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accommodations such as Section 504 Accommodations or an individualized education plan.

Key Points About Establishing and Coordinating a Graduated Reentry Plan

- Designate a Point Person to lead the school team and coordinate and facilitate communication among teachers, students, medical providers, guidance counselors, and parents until a student is recovered and able to return fully to their pre-injury academic programming.
- Establish and clearly communicate what temporary accommodations and supports the student will use.
- Gradually increase the amount of time spent in the classroom.
- Allow returning students to complete work in small increments at first until they can work for longer periods of time.
- Establish and clearly communicate a plan for making up missed work to reduce stress and reassure the student.
- Consider only grading students on the work they are able to complete.
- Allow the student access to the school nurse as needed to manage symptoms.



Table 1: School Accommodations for Post-Concussion Effects

Post-concussion Effect	Functional School Problem	What Should Teacher/Staff/Student Do
Attention/Concentration	Short focus on lecture, class work, homework	 Shorter assignments/ break down tasks Avoid testing or completion of major projects during recovery time Provide extra time to complete non-standardized tests in a quiet environment Postpone standardized test when possible Consider one test per day during exam periods Provide study guides, class notes and/or allow student to use a computer or tape recorder to record class information Assign a peer to take notes for the student
Working Memory	Holding instructions in mind, reading comprehension, mathematics calculation, writing	 Repetition, use of calculator Shorter reading passages Provide written instructions and help for homework and classwork
Memory consolidation/retrieval	Retaining new information, accessing learned information when needed	 Smaller chunks to learn Provide alternate methods for the student to demonstrate mastery such as multiple choice or spoken responses to questions rather than essay responses
Processing speed	Keep pace with work demand, process verbal information effectively	Extended time, slow down verbal information, comprehension checking
Fatigue	Decreased arousal, activation to engage basic attention, working memory	Rest breaks during classes, homework and examinations
Headaches	Interferes with concentration; Can be triggered by fluorescent lighting, loud noises, focusing on tasks	 Rest breaks Turn off fluorescent lights Rest in quiet area
Depression/withdrawal	Withdrawal from school or friends because of stigma or activity restrictions	 Time built in for socialization Talk with student about these issues and offer encouragement
Light/noise sensitivity	Symptoms worsen in bright or loud environments; difficulty reading paying attention to visual tasks	 Wear sunglasses/ sit away from bright sunlight Avoid noisy/crowded environments such as lunchroom, assemblies and hallways Use ear plugs Reduce brightness on screens and exposure to computers and videos



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Dizziness/balance problems	Unsteadiness when walking; often provoked by visual stimulus such as rapid movements, videos, etc.	 Preferential seating Cover one eye with patch/tape or one lens if glasses are worn Turn off fluorescent lights Provide quiet place to study Elevator pass Allow student to put head down if symptoms worsen Early dismissal from class Extra time to get from class to class to avoid crowded hallways
Sleep disturbance	Decreased arousal, shifted sleep schedule	 Later start time, shortened day Allow rest breaks during day
Anxiety	Can interfere with concentration, student may push through symptoms to prevent falling behind	 Reassurance from teachers and team about accommodations Workload reduction Alternate forms of testing
Symptoms sensitivity	Symptoms worsen with overactivity, resulting in any of the earlier mentioned problems	 Reduce cognitive or physical demands below symptom threshold Provide rest breaks Complete work in small increments until symptom threshold increases
Emotional/mood symptoms	Sadness, irritability, mood changes, nervousness, anxiety may affect social relationships. Student may feel scared, angry or depressed as a result of the concussion.	 Develop an emotional support plan for student Allow "signal" for student to remove him/herself from classroom to de-escalate Provide reassurance that what they are feeling is typical in the course of recovery (i.e., concern about getting behind in school work) Share difficulties and progress with parents, school staff, medical personnel, athletic staff Locate a quiet place for student to go if they feel overwhelmed Student may benefit from certain extracurricular activities approved by health care provider Connect student to psychological services



Table 2: Graduated Academic Re-entry Guidelines After Concussion

Rehabilitation Stage	Goals	Recommended Activities
REST	 Minimal cognitive activity (brain work) and academics. If symptoms are severe, consider staying home from school for a few days. Minimize electronics use. 	Inform school of the child's concussion. Ask for a team leader at school to be the point person for the return to learn process (such as guidance counselor, school nurse or athletic trainer). Minimize screen time. Use computer if necessary for school, but in short intervals (15 minutes with breaks). Avoid video games and movie theaters back at school full time with no symptoms. Child may sit out of school for two to four days, but if symptoms are mild can attend for half days or full days as long as symptoms don't worsen. If symptoms are gone and child can tolerate school, it's okay to skip steps and proceed to full academic work.
RE-ENTRY	Light to moderate cognitive activity. Try not to get too far behind in school but avoid making symptoms worse. • Attend school half or full days when able to listen, do light reading and can tolerate light exposure for 30 minutes (don't have to be completely symptom free). • Take rest breaks throughout the day if symptoms worsen. • Sit out of classes that might make symptoms worse (such as band and PE).	 Work with school to: Determine if work is excused (not to be made up), modified (must complete modified version of original assignment) or required (must be completed in full by student). Prioritize work in each class (what needs to be done first and what can wait to be completed at a later date.) Create a schedule for completing missed and upcoming assignments over the course of a few weeks. Then spread out make-up work in a calendar. Your doctor may send a note requesting temporary academic adjustments including: excused participation in physical education class and band extra time to complete modified tests or quizzes reduce essay length and homework delay or reschedule high-stakes tests or standardized tests If symptoms worsen, the child may rest at their desk or go to nurse's office. Consider scheduled breaks spread out during day.



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		Do homework in 15- to 30-minute blocks. Increase time as symptoms decrease.
REINTEGRATI ON	 Moderate to high cognitive activity. Avoid making symptoms worse. Attend school full days. Begin to complete make-up work. 	Continue to check in with teachers to assess what remaining work needs to be done. Consider untimed tests and continue to increase the amount of homework completed.
		The goal at this stage is to avoid the return of severe symptoms but keep in mind that "brain work" is not dangerous and symptoms worsened by reading will not injure the brain.
		As symptoms improve, your doctor may also begin prescribing, light, noncontact exercise.
RETURN	Full cognitive activity.Attend full school days.Complete any make-up work.	Attend all classes and full days of school without breaks. Fully resume classwork, homework and major assignments.
		Finish make-up work and testing.



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Table 3: Graduated Reentry to Physical Activity Guidelines After Concussion

Once a student-athlete is symptom free at rest for 24 hours and has signed a release by the treating clinician, she/he may begin the return to play progression below. Each step should take at least 24 hours so that an athlete would take approximately one week to proceed through the full rehabilitation protocol once they are asymptomatic at rest and with provocative exercise. If any post head injury symptoms occur while in the stepped program, then the student should drop back to the previous asymptomatic level and try to progress again after a further 24-hour period of rest has passed.

Rehabilitation Stage	Goals	Recommended Activities
REST	Complete physical rest until medical clearance.	Rest, no physical activity
REENTRY, Step 1	Light exercise.Increased heart rate with no symptoms	Light cardiovascular exercise
REENTRY, Step 2	Running or other aerobic exercise Added movement to light exercise. Activity with no symptoms	Running in the gym or on the field No helmet or other equipment.
REENTRY, Step 3	Non-contact training drills Increased exercise, coordination and attention. Activity with no symptoms	May participate in non-contact training drills
	Weight trainingActivity with no symptoms	Weight/resistance training
REINTEGRATI ON	 Full, normal practice or training Restore confidence and assess functional skills. Activity with no symptoms 	A walk-through practice does not count as a full, normal practice
RETURN	Full participation	